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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,109	03/23/2004	Masatsugu Masuda	0951-0132P	1859
2292	7590	10/24/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LOUIE, WAI SING	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,109	<b>Applicant(s)</b> MASUDA ET AL.	
	<b>Examiner</b> Wai-Sing Louie	<b>Art Unit</b> 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10, 11, 13, 24, 25, 27, 28 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 11, 13, 24, 25, 27, 28 and 32-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-11, 13, 24, 27-28, 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pasco (US 5,083,240) in view of Lu et al. (US Pub. 2003/0117794).

With regard to claims 1, 24 and 33-35, Pasco discloses a light guide device (col. 3, line 4 et seq. and fig. 1) comprising:

- At least one light source 6, an LED, (col. 3, line 33) in which light of the light source is guided and emitted from an operation member 3 having translucent properties (col. 3, lines 22-23) via an optical waveguide 1 (col. 3, lines 7-10);
- Pasco does not disclose a region that contains phosphor. However, Lu et al. disclose backlight module having a light guide 311 containing phosphor in a path through which the light of the light source 310 is guided (Lu paragraph [0022]), which is separated from the light source 310 (Lu fig. 3). Lu et al. teach the phosphor converts the light into high brightness uniform desired spectrum white light (Lu paragraph 0012]). Therefore, it would have been obvious to one of ordinary skill in the art to modify Pasco's device with the teaching of Lu et al. to

provide phosphor in a path through which the light of the light source 310 is guided in order to produce high brightness uniform desired spectrum white light.

With regard to claim 2, Pasco discloses the operation member 3 is constituted by a plurality of keytops (col. 3, lines 22-23).

With regard to claims 3 and 32, Pasco modified by Lu et al. disclose the phosphor is contained in a vicinity of the light source (Lu fig. 3).

With regard to claims 4, 6, Pasco modified by Lu et al. disclose the phosphor is constituted by a plurality of types of phosphors that emit light with different colors from each other (Lu paragraph 0021)).

With regard to claims 5, 8 and 27, Pasco modified by Lu et al. disclose the phosphor is contained in the plurality of keytops. However, the light is guided through the keytops and includes phosphor in the keytops is considered as duplication of parts, which was held to have been obvious. *St. Regis Paper Co. v. Beemis Co. Inc.* 193 USPQ 8, 11 (1977); *In re Harza* 124 USPQ 378 (CCPA 1960).

With regard to claim 7, Pasco modified by Lu et al. disclose the phosphors are arranged in a pattern (Lu fig. 1).

With regard to claims 10, 13, and 28, Pasco discloses the electronic equipment is a mobile phone (col. 1, line 13).

With regard to claim 11 Pasco discloses the plurality of keytops 17 and the optical waveguide 11 are integrated into one piece (fig. 5), and the integrated piece including the plurality of keytops 17 and the optical waveguide 11 is configured to be removable with respect to the main body of the electronic equipment (fig. 4).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pasco (US 5,083,240) modified by Lu et al. (US Pub. 2003/0117794) as applied to claims 1 and 24 above, and further in view of Physical of Semiconductor Device by S.M. Sze, second edition (page 683 fig. 1).

With regard to claim 25, Pasco modified by Lu et al. disclose the light source 310 emits UV or blue light (Lu paragraph [0022]), but do not disclose the wavelength is in a range from 400 to 430 nm. However, Sze discloses the near UV to blue light is in a range of 390 to 455 nm. Therefore, it would have been obvious the light source in Lu is in this range.

#### ***Response to Arguments***

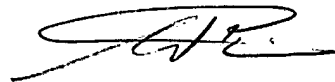
Applicant's arguments with respect to claims 1-8, 10-11, 13, 24-258, 27-28, and 32-35 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai-Sing Louie whose telephone number is (571) 272-1709. The examiner can normally be reached on 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2814

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



WAI-SING LOUIE  
PRIMARY PATENT EXAMINER

Wsl  
October 19, 2006.